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FIG. 1 - 2

Set II.

V _H 4-34		D5-5		J _H 6	
C	A R G	V	D T	A M	V
TGT	GCG AGA GG	GTG GAT ACA	GCT ATG GTT AC	AT TAC TAC TAC	TAC
C	A R G	Y G	D T	P T	I R R Y Y
TGT	GCG AGA GGA TAC	GGG GAT ACA	CCT ACC	ATT AGA TAC TAT	CLL183
C	A R G	Y A	D T	P V	F R R Y Y
TGT	GCG AGA GGA TAT	GCG GAT ACT	CCT GTG	TTT CGG CGC TAC TAC	CLL240
C	A R G	W G	D T	P M	L K R Y Y
TGT	GCG AGA GGC TGG	GGG GAT ACA	CCT ATG	CTT AAA AGA TAC TAC	CLL342
C	A R A	Y P	D T	P M	V R R Y Y
TGT	GCG AGA GCA TAC	CCG GAT ACA	CCT ATG	GTC AGG AGG TAC TAC	AF087422
C	A R G	F P	D T	D V	I K R Y Y
TGT	GCG AGA GGC TTC	CCG GAT ACA	GAT GTG ATT	AAG CGC TAC TAC	AJ239333
					CLL ID 47 2

CLL 4B 1

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FIG. 1 - 3

Set Via.

V _R 1-02		D6-19		J _R 4			
C	A	R	D/E	Y	F	D	Y
TGT	GCG	AGA	GA	AC	TAC	TTT	GAC
	V						
	GG	GTA	TAG				
		Q					
		W					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
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		V					
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		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
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		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V					
		L					
		CTG					
		GTA					
		V				</	

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FIG. 1 - 6

Set V.

V _H 1-69		D3-10		J _H 5	
C	A R D/E			Y Y Y	Y
TGT	GCG AGA GA			AT TAC TAC TAC	
	<u>I</u> <u>T</u> <u>M</u>	<u>V</u> <u>R</u> <u>G</u>	<u>I</u> <u>I</u> <u>I</u>		
	<u>GT ATT ACT ATG</u>	<u>GTT CGG GGA</u>	<u>GTT ATT ATA AC</u>		
C	A E G M	V Q G	V I G	I Y Y	
TGT	GCG GAG GGT ATG	GTT CAG GGA	GTT ATT GGA ATT	TAC TAC TAC TAC	AJ389179 GN12 ⁸
C	A R S M	V Q G	V I N V	L Y Y	
TGT	GCG AGG TCT ATG	GTT CAG GGA	GTT ATT AAC GTC	CTC TAC TAC TAC	AAC51697 FUH ⁵
C	A R A M	V R G	V I H L	D Y Y	
TGT	GCG AGG GCT ATG	GTT CGG GGA	GTT ATT CAC TTG	GAC TAC TAC TAC	AJ239372 ID64 ²
C	A R V M	V R G	V I S L	D Y Y	
TGT	GCG AGA GTT ATG	GTT CGG GGA	GTT ATT TCC CTG	GAC TAC TAC TAC	AF376959 SIN Digheiro U0

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FIG. 1-7

Set III.

V_R3-21
 C A R E/D
 TGT GCG AGA GA
 Y Y Y Y Y G M D V W G
 AT TAC TAC TAC TAC TAC GGT ATG GAC GTC TGG GGC

 C A R D A N G M D V W G
 TGT GCG AGA GAT GCG AAT GGA ATG GAC GTC TGG GGC CLL282
 C A R D R N G M D V W G
 TGT GCG AGA GAT CCG AAC GGT ATG GAC GTC TGG GGC CLL175
 C A R D Q N G M D V W G
 TGT GCG AGA GAT CAA AAC GGT ATG GAC GTC TGG GGC CLL412
 C A S D R N G M D V W G
 TGT GCG AGC GAT CGA AAC GGT ATG GAC GTC TGG GGC AJ239379 ID28 ²
 C A R E P Y G M D V W G
 TGT GCG AGA GAG CCA TAC GGT ATG GAC GTC TGG GGC AF174100 sc77u-16 ⁹
 C A R D G S G M D V W G
 TGT GCG AGA GAT GGC TCC GGT ATG GAC GTC TGG GGC AJ389178 GN11 ⁸
 C A R D A N G M D V W G
 TGT GCG AGA GAT GCT AAC GGC ATG GAC GTC TGG GGC AF299104 IF case 10 ¹⁰ U3

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FIG. 1 - 8

Set Vie

V_H5-51 **D6-19**

C A R Q/H
TGT GCG AGA CA

$$\frac{V}{GG} \frac{\overline{GTA}}{\overline{TAG}} \frac{\overline{Q}}{\overline{CAG}} \frac{\overline{W}}{\overline{TGG}} \frac{\overline{L}}{\overline{CTG}} \frac{\overline{V}}{\overline{GTA}} \frac{\overline{C}}{\overline{GTA}}$$

J_H4
Y F D Y
AC TAC TTT GAC TAC

C	A	R	Q	Q	W	L	G	D	Y	F	D	Y
TGT	GCG	AGG	CAG	CAG	TGG	CTG	GGT	GAC	TAC	TTT	GAC	TAC
C	A	R	Q	Q	W	L	A	G	H	F	D	Y
TGT	GCG	AGA	AGG	CAG	TGG	CTG	GCC	CTA	GGC	CAC	TTT	GAC
C	A	R	Q	Q	W	F	G	V	Y	F	D	Y
TGT	GCG	AGA	CAG	CAA	TGG	TTC	GGC	GTG	TAC	TTT	GAC	TAC
C	A	R	Q	Q	W	L	V	P	Y	F	D	Y
TGT	GCG	AGA	CAG	CAG	TGG	CTG	GTA	CTT	CCA	TAC	TTT	GAC
C	A	R	E	Q	W	L	I	V	T	H	F	D
TGT	GCG	AGA	GAG	CAG	TGG	CTC	ATA	GTA	ACT	CAC	TTT	GAC
C	A	R	Q	Q	W	L	V	L	D	Y	F	D
TGT	GCG	AGA	CAG	CAG	TGG	CTG	GTG	TTG	GAC	TAC	TTT	GAC
C	A	R	E	Q	W	L	V	L	S	N	F	D

Not available

PH1562 HOW 13

Not available

PH1562 HOW 13

FIG. 1 - 9

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V _H 1-02										D6-19					J _H 4				
C	A	R	D/E												F	D	Y		
TGT	GCG	AGA	GA												AC	TTT	GAC	TAC	
				V	-	Q	W	L	V										
	GG	GTA	TAG	CAG	TGG	CTG	GTA	C											
C	A	R	E	Q	W	L	V	L	E	H	Y	F	D	Y					
TGT	GCG	AGG	GAG	CAG	TGG	CTG	GTA	CTT	GAG	CAC	TAC	TTT	GAC	TAC	CLL011				
C	A	R	V	Q	W	L	G	L	R	-	H	F	D	Y					
TGT	GCG	AGA	GTG	CAG	TGG	CTG	GGC	TTA	AGA	---	CAC	TTT	GAC	TAC	CLL270				
C	A	R	E	Q	W	L	G	A	E	-	N	F	D	Y					
TGT	GCG	AGA	GAG	CAG	TGG	CTG	GGC	GCA	GAA	---	AAC	TTT	GAC	TAC	CLL266				
C	A	R	E	Q	W	L	V	L	K	-	N	F	D	Y					
TGT	GCG	AGG	GAG	CAG	TGG	CTG	GTA	CTG	AAA	---	AAC	TTT	GAC	TAC	CLL340				
C	A	R	V	Q	W	L	L	L	E	-	R	F	D	Y					
TGT	GCG	AGA	GTT	CAG	TGG	TTA	TTA	CTC	GAA	---	CGA	TTT	GAC	TAC	AJ239371	CLL 3	²		
C	A	R	N	Q	W	L	G	L	D	-	Y	F	D	Y					
TGT	GCG	AGA	AAC	CAG	TGG	CTG	GGT	CTC	GAC	---	TAC	TTT	GAC	TAC	AJ487492	SMZL Tierens, A.M.			
C	A	R	E	Q	W	L	V	R	T	-	S	F	D	Y					
TGT	GCG	AGA	GAG	CAG	TGG	CTG	GTA	AGG	ACG	---	AGC	TTT	GAC	TAC	U86787	CLL-H2B	¹	U0	
C	A	R	E	Q	W	L	V	L	S	-	Y	F	D	Y					
TGT	GCG	AGG	GAG	CAG	TGG	CTG	GTC	CTA	TCT	---	TAC	TTT	GAC	TAC	CLL336				
C	A	R	E	Q	W	L	V	L	-	N	Y	F	D	Y					
TGT	GCG	AGG	GAG	CAG	TGG	CTG	GTA	CTT	---	AAC	TAC	TTT	GAC	TAC	CLL360				
C	A	R	E	Q	W	L	A	L	K	-	P	F	D	Y					
TGT	GCG	AGA	GAG	CAG	TGG	CTG	GCC	TTA	AAA	---	CCC	TTT	GAC	TAC	AF376961	LAN Digheiro			
C	A	R	K	Q	W	L	A	I	V	N	Y	F	D	Y					
TGT	GCG	AGA	AAG	CAG	TGG	CTG	GCC	ATC	GTC	AAC	TAC	TTT	GAC	TAC	L01278	CLL-412	³		
C	A	R	E	Q	W	L	G	L	P	-	T	F	D	Y					
TGT	GCG	AGA	GAG	CAG	TGG	CTG	GGT	CTA	CCT	---	ACC	TTT	GAC	TAC	U86801	⁴	U3/1		
C	A	R	V	Q	W	L	G	L	T	G	P	N	D	Y					
TGT	GCT	AGG	GTT	CAG	TGG	CTG	GGC	CTG	ACG	GGG	CCG	AAT	GAC	TAC	U84176	KEM (VH1-46)	⁵	U0	
C	A	R	G	Q	W	L	V	I	L	-	N	F	D	Y					
TGT	GCG	AGG	GGA	CAG	TGG	CTG	GTC	ATC	CTA	---	AAC	TTT	GAC	TAC	U84162	BYR (VH1-46)	⁵	U0	
C	A	R	D	Q	W	L	P	T	-	N	N	F	D	Y					
TGT	GCG	AGA	GAT	CAG	TGG	CTG	CCC	ACG	---	AAC	AAC	TTT	GAC	TAC	AF376953	Digheiro PIQ	U2		
C	A	R	E	Q	W	L	V	L	S	-	H	F	D	Y					
TGT	GCG	AGG	GAG	CAG	TGG	TTG	GTA	CTA	TCT	---	CAC	TTT	GAC	TAC	CLL154	(VH1-18)			
C	A	R	Q	Q	W	L	G	G		D	Y	F	D	Y					
TGT	GCG	AGG	CAG	CAG	TGG	CTG	GGT	GGC		GAC	TAC	TTT	GAC	TAC	CLL026				
C	A	R	R	Q	W	L	A	L		G	H	F	D	Y					
TGT	GCG	AGA	AGG	CAG	TGG	CTG	GCC	CTA		GGC	CAC	TTT	GAC	TAC	AF099198	Tre	¹¹	O12/0-2	
JK2																			
C	A	R	Q	Q	W	F	G	V		Y	Y	F	D	Y					
TGT	GCG	AGA	CAG	CAA	TGG	TTC	GGC	GTG		TAC	TAC	TTT	GAC	TAC	AJ414007	CLL021 Russia	U0		
C	A	R	Q	Q	W	L	V	L		P	Y	F	D	Y					
TGT	GCG	AGA	CAG	CAG	TGG	CTG	GTA	CTT		CCA	TAC	TTT	GAC	TAC	AJ239373	ID38	²		
C	A	R	E	Q	W	L	I	V		T	H	F	D	Y					
TGT	GCG	AGA	GAG	CAG	TGG	CTC	ATA	GTA		ACT	CAC	TTT	GAC	TAC	AJ555263	G014			
C	A	R	Q	Q	W	L	V	L		D	Y	F	D	Y					
TGT	GCG	AGA	CAG	CAG	TGG	CTG	GTG	TTG		GAC	TAC	TTT	GAC	TAC	AJ272398	AG	¹²		
C	A	R	E	Q	W	L	V	L		S	N	F	D	Y					
Not available										PH1562					HOW				
															¹³				

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FIG. 2

Amino acid alignments of the H chain variable regions of all sequences in each Set

Set	IV	CDR1	CDR2	CDR3
Germline	QVQLVQSGAEVKKPGSSVKVCKASGGTSSSYAISWVRQAPGQGLEWMGGIIPFGTANYAQKFGQGRVTITADKSTSTAYNELSSLRSEDTAVYYCARD	YDYVWGSYRY	DAFDVWGQGTMTVSS	
MCLL068	.....	.....	.....	.....
MCCL258	.....	.....	.....	.....
MF9	.....	.....	.....	.....
SHI	.....	.....	.....	.....
CLL022	.....	.....	.....	.....
RIZ	.....	.....	.....	.....
Consensus	QVQLVQSGAEVKKPGSSVKVCKASGGTSSSYAISWVRQAPGQGLEWMGGIIPFGTANYAQKFGQGRVTITADKSTSTAYNELSSLRSEDTAVYYCARD	YDYVWGSYRY	DAFDVWGQGTMTVSS	
Set	VIII	CDR1	CDR2	CDR3
Germline	QVQLVQSGAEVKKPGSSVKVCKASGGTSSSYAISWVRQAPGQGLEWMGGIIPFGTANYAQKFGQGRVTITADKSTSTAYNELSSLRSEDTAVYYCARD	DIVVVPAAI	YIFYGMDVWGQGTMTVSS	
FS41	.....	.....	.....	.....
UC4	.....	.....	.....	.....
GO13	.....	.....	.....	.....
Consensus	QVQLVQSGAEVKKPGSSVKVCKASGGTSSSYAISWVRQAPGQGLEWMGGIIPFGTANYAQKFGQGRVTITADKSTSTAYNELSSLRSEDTAVYYCARD	DIVVVPAAI	YIFYGMDVWGQGTMTVSS	
Set	V	CDR1	CDR2	CDR3
Germline	QVQLVQSGAEVKKPGSSVKVCKASGGTSSSYAISWVRQAPGQGLEWMGGIIPFGTANYAQKFGQGRVTITADKSTSTAYNELSSLRSEDTAVYYCARD	MDVRVIT	YIFYGMDVWGQGTMTVSS	
CLL561	.....	.....	.....	.....
M321	.....	.....	.....	.....
RF22	.....	.....	.....	.....
GRI2	.....	.....	.....	.....
FUH	.....	.....	.....	.....
ID64	.....	.....	.....	.....
SIN	.....	.....	.....	.....
Consensus	QVQLVQSGAEVKKPGSSVKVCKASGGTSSSYAISWVRQAPGQGLEWMGGIIPFGTANYAQKFGQGRVTITADKSTSTAYNELSSLRSEDTAVYYCARD	MDVRVIT	YIFYGMDVWGQGTMTVSS	
Set	II	CDR1	CDR2	CDR3
Germline	QVQLQQWAGLLKPKSETLSLTCAVYGESFGSYTHSWIRQPPGKLEWIGETINHSSTNYNPSLKSRTIISVDTSKNQPSLKLSSVTAADTAVYYCARG	VDTAMV	YIFYGMDVWGQGTMTVSS	
CLL183	.....	.....	.....	.....
CLL240	.....	.....	.....	.....
CLL342	.....	.....	.....	.....
CLL48	.....	.....	.....	.....
ID47	.....	.....	.....	.....
Consensus	QVQLQQWAGLLKPKSETLSLTCAVYGESFGSYTHSWIRQPPGKLEWIGETINHSSTNYNPSLKSRTIISVDTSKNQPSLKLSSVTAADTAVYYCARG	VDTAMV	YIFYGMDVWGQGTMTVSS	
Set	Via	CDR1	CDR2	CDR3
Germline	QVQLVQSGAEVKKPGASVKVCKASGYTFSTGYTHSWVRQAPGQGLEWMGWINPNSGGTNYAQKFGQGRVTITRDTSTAYMELSSLRSDDTAVYYCARD	QNLV	YFDYWGQGTMTVSS	
CLL011	.....	.....	.....	.....
CLL266	.....	.....	.....	.....
CLL270	.....	.....	.....	.....
CLL340	.....	.....	.....	.....
CLL3	.....	.....	.....	.....
CLL-18	.....	.....	.....	.....
CLL-42B	.....	.....	.....	.....
Consensus	QVQLVQSGAEVKKPGASVKVCKASGYTFSTGYTHSWVRQAPGQGLEWMGWINPNSGGTNYAQKFGQGRVTITRDTSTAYMELSSLRSDDTAVYYCARD	QNLV	YFDYWGQGTMTVSS	
Set	Vib	CDR1	CDR2	CDR3
Germline	QVQLVQSGAEVKKPGASVKVCKASGYTFTSYAMHWVRQAPGQRLWGWINAGNGNTKYBQKFGQGRVTITRDTSTAYMELSSLRSEDTAVYYCARD	QNLV	YFDYWGQGTMTVSS	
CLL336	.....	.....	.....	.....
CLL360	.....	.....	.....	.....
LAN	.....	.....	.....	.....
CLL-412	.....	.....	.....	.....
POR	.....	.....	.....	.....
PIQ	.....	.....	.....	.....
Consensus	QVQLVQSGAEVKKPGASVKVCKASGYTFTSYAMHWVRQAPGQRLWGWINAGNGNTKYBQKFGQGRVTITRDTSTAYMELSSLRSEDTAVYYCARD	QNLV	YFDYWGQGTMTVSS	
Set	Vic	CDR1	CDR2	CDR3
Germline	QVQLVQSGAEVKKPGASVKVCKASGYTFTSYGISHVRQAPGQGLEWMGHSAYNGSTNYAQKFGQGRVTITRDTSTAYMELSSLRSDDTAVYYCARD	QNLV	YFDYWGQGTMTVSS	
CLL154	.....	.....	.....	.....
Set	Vid	CDR1	CDR2	CDR3
Germline	QVQLVQSGAEVKKPGASVKVCKASGYTFTSYTHSWVRQAPGQGLEWMGIINPSSGGSTSYAQKFGQGRVTITRDTSTAYMELSSLRSEDTAVYYCARD	QNLV	YFDYWGQGTMTVSS	
BYR	.....	.....	.....	.....
KSH	.....	.....	.....	.....
Consensus	QVQLVQSGAEVKKPGASVKVCKASGYTFTSYTHSWVRQAPGQGLEWMGIINPSSGGSTSYAQKFGQGRVTITRDTSTAYMELSSLRSEDTAVYYCARD	QNLV	YFDYWGQGTMTVSS	
Set	Vie	CDR1	CDR2	CDR3
Germline	EVQLVQSGAEVKKPGESLRISCKGSGISFTSYHISWVRQMPGKLEWMGRIDPSDSTNYSPFQGHVITISADKSIISTAYLQNSSLKASDTAMYYCARG	QNLV	YFDYWGQGTMTVSS	
CLL026	.....	.....	.....	.....
TR8	.....	.....	.....	.....
CLL021	.....	.....	.....	.....
ID36	.....	.....	.....	.....
GO14	.....	.....	.....	.....
AG	.....	.....	.....	.....
HOW	.....	.....	.....	.....
Consensus	EVQLVQSGAEVKKPGESLRISCKGSGISFTSYHISWVRQMPGKLEWMGRIDPSDSTNYSPFQGHVITISADKSIISTAYLQNSSLKASDTAMYYCARG	QNLV	YFDYWGQGTMTVSS	

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FIG. 3

Amino acid alignments of the L chain variable regions of all sequences in each Set.

set IV	
Germline	EIVLTQSPGTLSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLIYQASRATGIPDRFSGSGGTFTLTISRLPEDPFATYCCQYFGSSPTFPQGQTKVEIK
CLL068	.....
CLL1258	.....
MF9	.....
Consensus	EIVLTQSPGTLSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLIYQASRATGIPDRFSGSGGTFTLTISRLPEDPFATYCCQYFGSSPTFPQGQTKVEIK
set VIII	
Germline	EIVLTQSPATLSLSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLIYDASNRATGIPARFSGSGGTFTLTISRLPEDPFATYCCQYFGSSPTFPQGQTKVDIK
G013	.....
Consensus	EIVLTQSPATLSLSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLIYDASNRATGIPARFSGSGGTFTLTISRLPEDPFATYCCQYFGSSPTFPQGQTKVDIK
set V	
Germline	QSVLTQPPASGTPGQRTVIRCSGSSNIGNTVWYQQLEPGTAPKLLIYNQRPFGVDRFSGSKSGTSASIAISGLQSEDEADYYCAWDDSLNGPVFGGGTKLTVL
RF22	.....
GN12	.....
Consensus	QSVLTQPPASGTPGQRTVIRCSGSSNIGNTVWYQQLEPGTAPKLLIYNQRPFGVDRFSGSKSGTSASIAISGLQSEDEADYYCAWDDSLNGPVFGGGTKLTVL
Set I	
Germline	DVVTQSPFLSLPVTLGQFASISCRSSQSLVSDGNTYLNWYQQRPQSPRLIYKVSRDSGVDRFSGSGGTFTLTISRLPEDPFATYCCQYFGSSPTFPQGQTKLEIK
CLL183	.....
CLL240	.....
CLL342	.....
Consensus	DVVTQSPFLSLPVTLGQFASISCRSSQSLVSDGNTYLNWYQQRPQSPRLIYKVSRDSGVDRFSGSGGTFTLTISRLPEDPFATYCCQYFGSSPTFPQGQTKLEIK
Set VI	
Consensus	DIQMTQSPSLASVDGVTTTCRASQSISSYLWYQQKPGKAPKLLIYAASLIQGVDRFSGSGGTFTLTISLQPEDFATYCCQSYSTPP-WTFQGGTKVEIK
CLL011	.....
CLL266	.....
CLL270	.....
CLL340	.....
CLL336	.....
CLL360	.....
CLL-412	.....
TRF	.....
G014	.....
Consensus	DIQMTQSPSLASVDGVTTTCRASQSISSYLWYQQKPGKAPKLLIYAASLIQGVDRFSGSGGTFTLTISLQPEDFATYCCQSYSTPP-WTFQGGTKVEIK

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FIG. 4

VBL-69	D3-16	JH3	Vk A27	Jk1/4*/5#
CARD/E		D A F D I	Q Q Y G S S P P	
tgt gag aga ga		t gat gct ttt gat acc	cag cag tat ggt agc tca cct cc	
Y Y D Y V W G S Y R Y			W T F G	
g tat tat gat tac ggt tgg ggg agt tat cgt tat acc			g tgg acg ttc ggc	
G G D	S N	CLL068 . . . . .	. . . . .	. . . . .
.ga ggc g. . . . .	.c .a. . . . .	. . . . .	. . . . .	. . . . .
G G I	P N	CLL258 . . . . .	. . . . .	. . . . .
.gg ggt at. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G P	P N	MF9 . . . . .	. . . . .	. . . . .
.ga ggg cc. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	S N	SMI . . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I . . . . .	. . . . .	. . . . .	. . . . .
.ga ggc a. . . . .	.a. . . . .	. . . . .	. . . . .	. . . . .
G G D	P N . . . . .	. . . . .	. . . . .	. . . . .
.gg gg. g. . . . .	.ccg .a. . . . .	. . . . .	. . . . .	. . . . .
G G N	I			

V _H L-69	D3-10	JH6	Jλ1/3*
CARD/E	Y Y Y		Vλ1-16
tgt gcg aga ga	at tac tac tac		W D D S L N G P
I T M V R G V I I			tgg gat gac agc ctg aat ggt cc
gt att act atg gtt cgg gga gtt att ata ac			Y V F G t tgg gtg ttc ggc

A . . Q . . Q T . . CLL561	. . . . .	. . . . .	R *
A T Y . . MJ21	. . . . .	. . . . .	- F . . .
G T Y . . RF22	t
E G . Q . G I . . GN12	
S . . Q . N V L . FUH	
A H L D . ID64	
V S L D . SIN	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----

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FIG. 7

V _H 4-34	D5-5	J _H 6	V _K A17	J _K 1/2*
C A R G		Y Y Y	M Q G T H W P P	
tgt gcg aga gg		at tac tac tac	atg caa ggt aca cac tgg cct cc	
	V D T A M V			W T F G
	gtg gat aca gct atg gtt ac			g tgg acg ttc ggc
. Y G . . . P T I R R . . . CLL183			. . . . .	. . . . .
.a tac .g.c. . . .cc a. . . .ga agat			. . . . .	. . . . .
. Y A . . . P V F R R . . . CLL240			. . . . .	. . . . .
.a tat .c.t c. . . .g. . . .t. . . .egg cg. . . .			. . . . .	. . . . .
. W G . . . P . L K R . . . CLL342			. . . . .	. . . . .
.c tgg .g.c. . . .c. . . .a aga . . . .			. . . . .	. . . . .
. A Y P . . . P . V R R . . . CLL 4B			. . . . .	. . . . .
.ca tac cc.c. . . .c. . . .c .gg agg . . . .			. . . . .	. . . . .
. F P . . . D V I K R . . . ID47			. . . . .	. . . . .
.c ttc cc.a. g. . . .a. . . .g cg. . . .			. . . . .	. . . . .
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15			1 2 3 4 5 6 7 8 9 10 11 12	

V _H 1-02	D6-19	J _H 4	V _K 012/02	J _K 1/2*
CARD/E		Y F D Y	Q Q S Y S T P P	
tgt gcg aga ga		ac tac ttt gac tac	caa cag agt tac agt acc cct cc	
V * Q W L V			W T F G	
gg gta tag cag tgg atg gta c			g tgg acg tta ggc	
. L E H	CLL011 T		
. G A E - N	CLL266 - K		
. V G L R - H	CLL270		
. L K - N	CLL340		
. V L L E - R	CLL3		
. N G L D	slv18 (marginal zone lymphoma)			
. E R T - S	CLL-H2B			
. L S -	CLL336 S		
. L - N	CLL360		
. A L K - P	LAN			
. K A I V N	CLL-412		
. P T - N N	PIQ			
. L S - H	CLL154		
. G I L - N	BYR			
. V G L T G P N	KEM			
. G G - D	CLL026			
. R A L - G H	TRE		
. F G V - Y	CLL021		
. L P -	ID38			
. E I V T - H	GO14 - R		
. L - D	AG		
. E L S -	HOW			
nucleotide sequence not available				
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		1 2 3 4 5 6 7 8 9 10 11 12 13		